

MCR10150

Fix *info* and *translator* Search Paths to Support AML

Revision 1.0

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1 Problem Description

Multics ticket <https://multics-trac.swenson.org/ticket/309> describes an inconsistency in the default system search paths resulting from the inclusion of the Author Maintained Library (AML) in Multics releases. As of MR12.8, the AML library has been included in the release.

The default system *linker* search path, equivalent to the *search rules*, has always included the AML library (*laml*). However, since this library wasn't ever included in Multics releases, it was excluded from the *linker* search paths because it didn't exist. Now that we have started including the AML library, the default *linker* search path includes this library. However, the *info* and *translator* search paths do not include the `>doc>aml_info` and `lldlamlinclude` directories, respectively.

The inconsistency can be seen by displaying the *linker*, *info*, and *translator* search paths:

This MCR proposes to fix this inconsistency by adding the appropriate directories to the *info* and *translator* search paths.

```
psp linker
linker
    -initiated_segments
    -referencing_dir
    -working_dir
    >udd>sa>ejs>lib>execution
    >libraries>release_tools>execution
    >system_library_standard
    >system_library_unbundled
    >system_library_1
    >system_library_tools
    >system_library_auth_maint
```

```
psp info
info
    -referencing_dir
    >udd>sa>ejs>lib>info
    >doc>iml_info
```

```

>doc>info
>doc>privileged
>doc>ss>operator
>doc>ss>r1_initializer
>doc>ss>accounting
>doc>ss>io_daemon
>doc>ss>bce

```

```

psp translator
translator
    -working_dir
    >udd>sa>ejs>lib>include
    >udd>[user project]>include
    >ldd>include

```

As can be seen, while the *linker* search paths include AML (>system.library.auth.maint), the *info* and *translator* search paths do not include the respective AML directories.

2 Proposed Fix

The default search paths are defined by the segment >>sss>search_list.defaults_. The source for this data segment is `search_list.defaults_`. The proposed fix is to update this CDS segment to include an additional *info* and *translator* search path directory.

The fix is trivial and can be seen in the `compare_ascii` output, below:

```
cpa [lpn search_list_defaults_.cds] ==
```

A98	3 paths	(2) like search_path,
Changed by B to:		
B98	3 paths	(3) like search_path,
A120	3 paths	(3) like search_path,
Changed by B to:		
B120	3 paths	(4) like search_path,

Inserted in B:

```

B230      lists.info_segments.paths (3).type = ABSOLUTE_PATH;
B231      lists.info_segments.paths (3).pathname = ">doc>aml_info";
Preceding:
A230
A231      lists.mrds.name_count = hbound (lists.mrds.names, 1);

```

Inserted in B:

```

B266      lists.translator.paths (4).type = ABSOLUTE_PATH;
B267      lists.translator.paths (4).pathname = ">ldd>aml>include";
Preceding:

```

A264

A265 `lists.pnotice.name_count = hbound (lists.pnotice.names, 1);`

Comparison finished: 4 differences, 8 lines.

With this change, the default search paths look like this:

psp linker

linker

```
-initiated_segments
-referencing_dir
-working_dir
>system_library_standard
>system_library_unbundled
>system_library_1
>system_library_tools
>system_library_auth_maint
```

psp info

info

```
>doc>iml_info
>doc>info
>doc>aml_info
```

psp translator

translator

```
-working_dir
>udd>[user project]>include
>ldd>include
>ldd>aml>include
```

3 Documentation

The default search paths appear not to be documented, so no documentation changes are required.

4 Test

The changes will be tested by checking the *info* and *translator* search paths before and after the change.

5 Version History

2025-02-13	1.0	Initial version of the MCR.
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